

# FUEISManager \* Terminal Automation OIL & GAS

# **Quick Start Guide**



## Welcome

Included within the FuelsManager Oil & Gas package is:

- · CD-ROM software in DVD case with Quick Start Guide booklet
- Keyboard template (To place over the function keys on the keyboard)
- Hardware security key (To attach to the back of the computer)
- · Mouse pad
- Support label (Place in a visible location on the computer running FuelsManager)

By now, our Project engineers have installed and configured FuelsManager Oil & Gas to operate on your PC, running a Microsoft Windows platform. If you are familiar with this environment, you will find using all elements of the FuelsManager graphical (HMI) interface second nature.

Depending on your installation, you may be using the FuelsManager Operate Interface or the FuelsManager Web Server Interface to manage your operations. This guide will help to familiarize you with the most common elements found within each user interface.

- FuelsManager® Oil & Gas is available in four Editions: Standard, Professional, Terminal Automation and Enterprise.
- ➤ For detailed step-by-step guides, please refer to the User Manual contained on the CD-ROM or the online help systems accessible from FuelsManager.
- ➤ For more detailed information on how FuelsManager is configured on your network, please contact your system administrator.



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# Tank Gauging & Inventory Managment

### Starting FuelsManager

If FuelsManager Operate is not already running, start FuelsManager from the Windows Start Menu or by "double clicking" the FuelsManager Operate Desktop Icon.

### **Interface Elements**

FuelsManager Oil & Gas provides a familiar Windows environment. The following items allow you to navigate through the program and manage your facility with ease.

### **Keyboard Shortcuts**

F1	Returns you to the Index display
F2	Opens the Graphic Display Selection dialog box
F3	Opens the Report List Selection dialog box
F4	Opens the Database Point Monitor for a previously defined point
F5	Opens the Alarm Summary
F6	Silences alarms
F7	Opens a Tank Detail
F8	Opens a Tank Group
F9	Toggles between Graphic and Tabular Tank Group displays
CTRL + F4	Closes the selected window
CTRL + TAB	Toggles through open displays
ALT + TAB	Toggles through all open applications

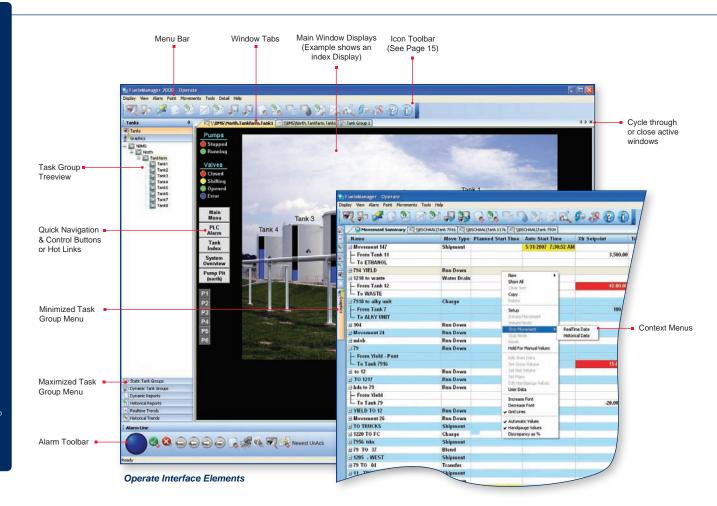
Start FuelsManager Operate from the Start Menu, select Programs/ FuelsManager/Operate.



### FuelsManager Operate Icon

- ➤ Access the User Manual online from the 'Help' Menu. Then use the bookmarks to navigate to the desired topic.
- ► The Icon Toolbar can be customized to only show the icons you require.
- ► The Task Groups and Alarm Line can be easily minimized to provide a larger view in the main window.
- ► Task Groups and Window Tabs can be moved and rearranged easily by dragging and dropping.
- See the back cover of this booklet for a full listing of FuelsManager Toolbar icons.

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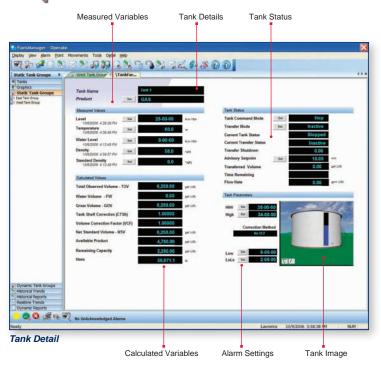




### **Tank Details**



The Tank Detail display provides all inventory management information relating to a single tank.



- ► F7 opens a list of available Tank Detail displays.
- Cycle through Tank Detail displays by using the "Page Up/Page Down" keys on your keyboard.
- ➤ Selecting a "Set" Button on the display will allow you to manually enter the value of the specific item. Depending on your security privileges, not all set buttons may be available.

### **Tank Calculator**

The Tank Calculator is a valuable tool for scheduling and planning based on "what if" scenarios. You are able to manually perform calculations using current tank data without changing any tank values. For example, "What would the level be if 100,000 gallons (378,541).

liters) was added?" or "What volume could be added to reach the high level limit?".

Calculator => \\EXAMPLE\Tanks.Tank1.Gauge Data Item Start Values End Values Differential Values 15-03-03 15-03-03 0-00-00 Level (ft-in-16th) Water Level (ft-in-16th) 0-00-00 0-00-00 0-00-00 Click cells to Solids Level (ft-in-16th) 0-00-00 0-00-00 0-00-00 change values Temperature (°F) 93.9 93.9 0.0 Ambient Temp (°F) 0.0 0.0 Vapor Temp. (°F) 0.0 0.0 0.0 Other values are Vapor Press P3 (PSI) 0.00 0.00 0.00 automatically calculated Standard Density (\*API) 32.50 32.50 0.00 based on your inputs Density (\*API) Tank Shell Corr Fac 3,816.97 Volume (gal (US)) 3,816.97 0.00 Roof Correction (gal (US)) HydroMeter Value Volume Gross (gal (US)) 3.816.97 3.816.97 0.00 Vol. Available Gross (gal (US)) Vol. Remaining Gross (gal (US... Total Net Volume (gal (US)) Volume Net (gal (US)) 3,758.08 3,758.08 0.00 Vapor Net Volume (gal (US)) Volume Available Net (gal (US... Volume Remaining Net (gal (U... Bottom Volume (gal (US)) Water Volume (gal (US)) 0.00 0.00 0.00 Solids Volume (gal (US)) 0.00 0.00 Mass (lb) 27,034.87 27,034.87 0.00 Liquid Mass (lb) Vapor Mass (lb) Mass Available (lb) Mass Remaining (lb) 0.00 0.00 Volume Correction (gal (US)) 0.00 Vapor Density (lb/ft²) 0.00 0.00 0.00 Density Temperature (°F) 0.00 0.00 0.00 Print

Tank Calculator

The Tank Calculator can be opened from a Tank Detail display's 'Detail' Menu.



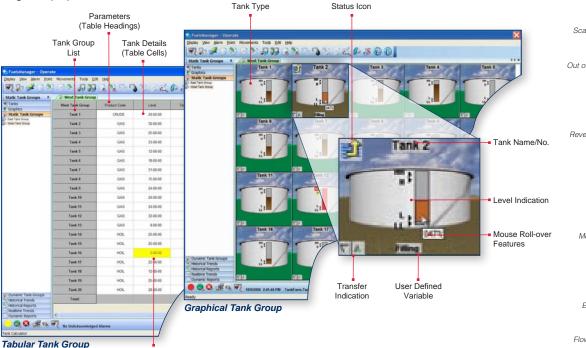
### ► F8 opens a list of Tank Groups available for display or allows you to create a new Tank Group display.

### **Tank Group**

Tank Group displays allow you to view multiple tank information on a single display. Depending on your preference, the information can be displayed graphically or in a tabular spreadsheet format. Define totals and sub-total rows in tabular views to quickly see the total amounts

of products across multiple tanks and total product for the overall facility on a single display.

Alarm Settings



### Tank Status Icons

Test Mode



Scan Failure



Out of Service





Reverse Flow



Alarm



No flow



Movement



Filling



Emptying



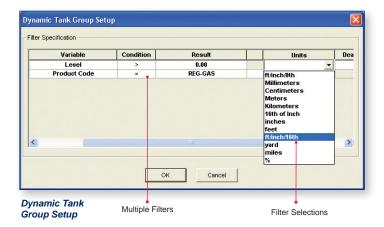
Flow Failure



### **Dynamic Tank Groups**

As a standard feature, you are able to easily create "Dynamic Tank Group" displays. With a Dynamic Tank Group you are able to:

- set filters (or conditions), such as level greater then 10 feet (3 meters) or product equals crude. Having defined this filter, FuelsManager automatically adds and deletes tanks from the Tank Group display as the filter condition is met.
- combine conditions in a filter, such as flow is greater than zero and the product transfer time remaining is less than 60 minutes. You then see a "Tank Group" display containing moving tanks that are estimated to complete movements within the next hour (i.e. critical tanks).

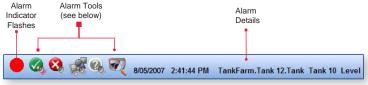


- ► "Double clicking" a tank will open the Tank Detail display.
- ► F9 Toggles between Graphical and Tabular displays.
- On both the Graphical and Tabular tank displays, you can quickly and easily add or delete tanks.
- You can quickly add, delete, edit or insert columns to a Tabular Tank Group display.
- Right mouse click on the tank heading of a tabular tank group to access the filter setup.



# **Alarm Management**

The Alarm Line provides a first sign of an alarm condition using flashing visual and audible notification regardless of which window is active. The flashing colors are based on alarm priorities; for example, these are typically red for High-High and yellow for High level alarms.



Alarm Line

### **Alarm Summary**

The Alarm Summary is accessed from the Alarm Line by clicking on the Alarm Indicator. It provides a real-time display of all currently active alarms, including alarm type, date, time, acknowledgement status and priority.

### **Log File Browser**

All alarms and events are logged to file for future reference. Open the Log File Browser from the Alarm Line or Icon Toolbar to view and print historical reports of alarms or events in detail.

- ► F6 Silences the Alarm, but the alarm will continue to flash until acknowledged by the operator.
- ► F5 Displays the Alarm Summary.

### Alarm Icons



Acknowledge Alarm



Silence Alarm



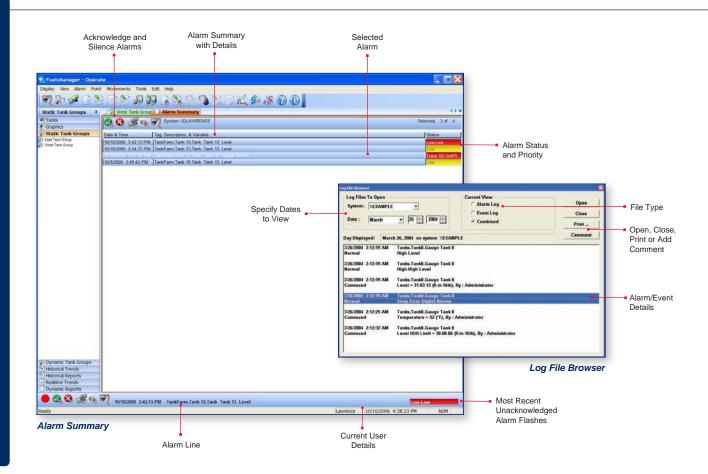
Tank Alarm



Alarm Graphic



4ıarm ⊣elp



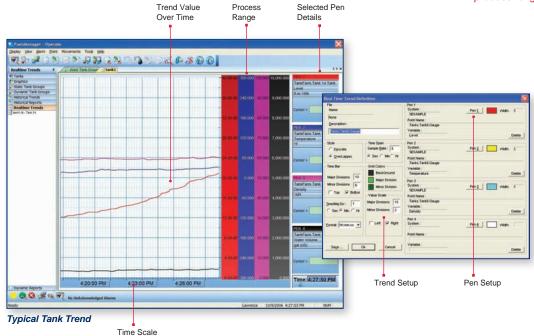


### **Tank Trends**

You are able to view two types of trends: Generic Trends and Tank Trends. Generic Trends allow the selection of values from any point in the FuelsManager database. Tank Trends allow you to select values associated with a specific tank. With both types of trend you are able to select and define data for real-time or historical trends using a single dialog box.

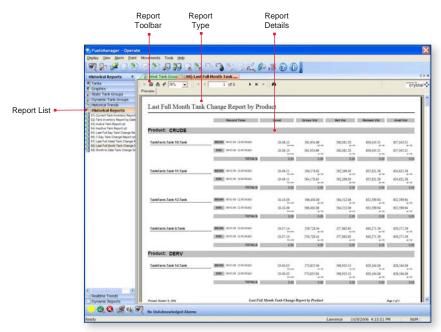
► One section of the 'Trend Dialog box' differs from Real-time to Historical Trends - You must select the time period for Historical Trends.

► Access the 'Trend Dialog Box' from the Trend menu to define trend data, process range, color and time scale.



### **Operator Reports**

Standard reports can be previewed and then printed, either on demand or periodically. FuelsManager Oil & Gas is supplied with a number of Real-time and Historical reports that can be accessed from the 'Display' Menu, Task Group Treeview or Icon Toolbar. Refer to the User Manual for further information about creating custom reports using Seagate Software Crystal Reports™.



- ► F3 Opens the 'Report List Selection dialog box'.
- ► Real-time reports can be edited using an built-in reprt editor.
- ► Real-time reports display live data while Historical reports are created from archived information within FuelsManager.

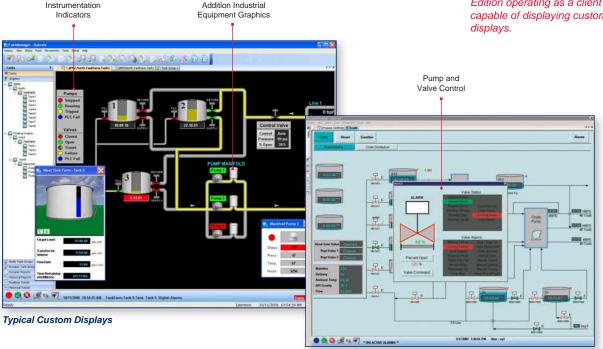
Example Report

### **Custom (SCADA) Displays**



FuelsManager Oil & Gas is capable of displaying custom displays. Typical custom graphics include an index, site overview or a SCADA display. These may include 'hot links' to other displays or items, such as instrumentation, pumps or valves.

- ► FuelsManager Oil & Gas Professional and Terminal Automation Editions allow you to create and edit custom graphics, such as SCADA displays.
- ► FuelsManager Oil & Gas Standard Edition operating as a client is capable of displaying custom



### **Operator Icons**



Default Icons (click t open or activate)

Customize Toolbar

### Desktop & Administrator



2



Tank Group

ail 🦳



Trend

Historical



**Operator Toolbar** 

Movement



Report

Histroical

Report



Acknowledge Alarm

Alarm Toolbar



Hardware Key

FuelsManager

Configuration



7



Trend

Tank
Trend



Movement Report

Historical

Movement



Alarm Log



Alarm Graphic

Silence

Alarm



FuelsManager Web Interface



Define Point

Tank

Calculator



Historical Tank Trend



Leak Detection



Alarm Summary



Alarm Help



FuelsManager Operate



Add Point



Graphics



Macro



Tank Alarm



FuelsManager Web Server



Subtract Point



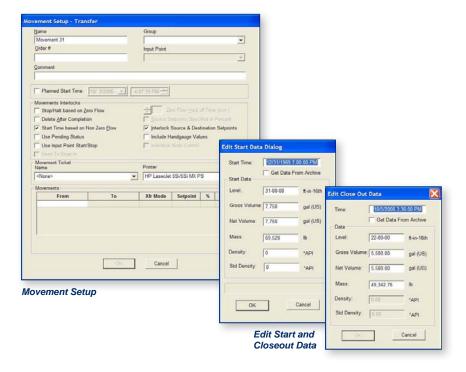
Screen Print



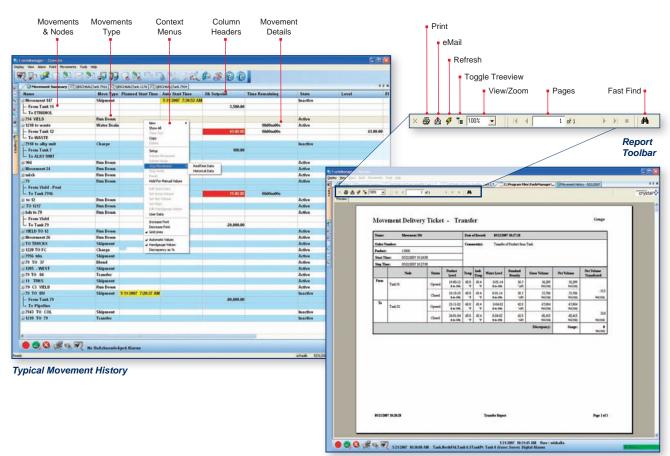
### **Product Movement System**



A fully revised product movement system allows you to track, manage and report all product movements through your facility, including shipments, blends, tank-to-tank transfers, etc. quickly and easily.



- ► The product Movement Tracking System is supplied as standard with The Terminal Automation Edition. As an optional feature the system requires FuelsManager Professional Edition to operate.
- Easily expand/contract each movement to display/hide nodes and details for each individual movement.
- Standard table formats allow editing and managing movement summary/ history data.
- ► Movements can be automatically started based on plant status, such as a valve opening or pump starting.
- ► Movements can be automatically started based on date or time.
- ► Movements can be downloaded from logistics/planning systems
- ▶ Operators can edit movement start/ stop data manulally or pull data from Fuelsmanager's archive ensuring accurate start/stop data is used.





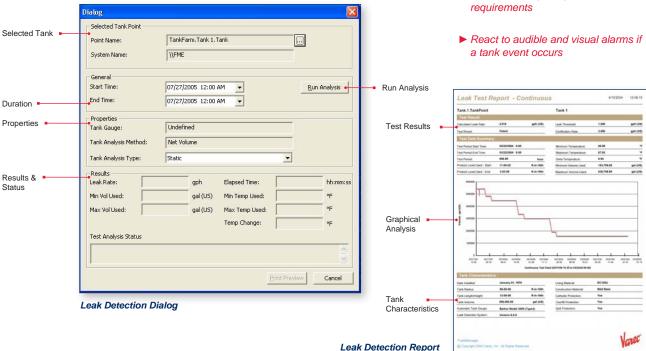
Typical Movement Ticket/Report

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### **Leak Detection**



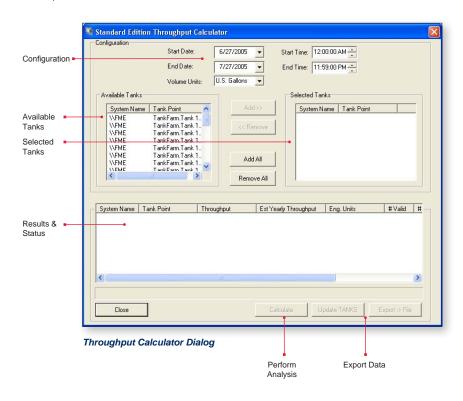
Perform a static or continuous leak analysis on your tanks by calculating and analyzing gross and net volumes.



- ► Configure the system for automatic monthly reporting
- 3rd party certified for use on underground storage tanks - Archive all data and reports per EPA requirements

### **EPA Title V Emissions**

Estimate emissions by automating a product throughput analysis of your tanks. All calculated data can be exported to a file that can be opened in standard business software, such as Microsoft Excel or exported to US EPA TANKS (version 4.09b) software.



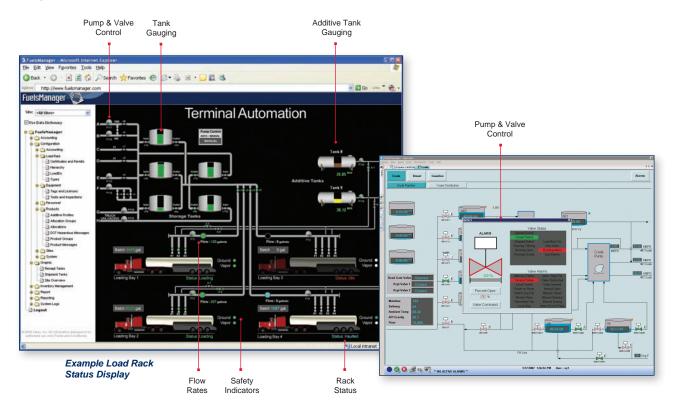
- Select time periods analyzes your tanks per month, per year or over any given period
- Select engineering units gallons, bbls, etc.
- ► Add or remove tanks before an analysis is performed
- ► Calculate throughput for all tank types



### **Load Rack Status**

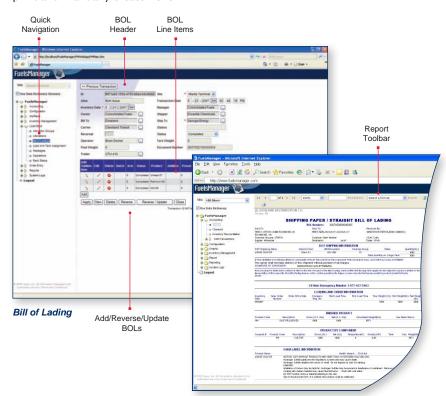
Custom displays represent your loading operations with data or status of all integrated equipment displayed to your operator.

Using powerfull drawing tools SCADA graphics can be created to suit your particular terminal configuration.



### **Bill of Lading**

From a single display, your operators are able to search, review, edit, preview, print and manually create BOLs.



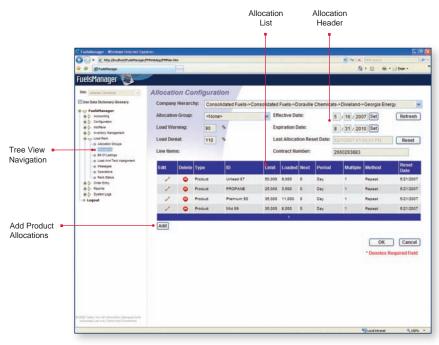
- ► BOLs can be automatically printed, saved as Adobe PDF or exported to Microsoft Excel.
- ➤ Configure rules for printing BOLs with incomplete loads or broken blends.
- Customize BOLs using Microsoft Reporting Services.
- ► Details such as bill to, ship-to, carrier, product, quantity, temperature, density, etc. are all available based on your facilities configuration.

Varec

Bill of Lading Print Preview

### **Product Allocations**

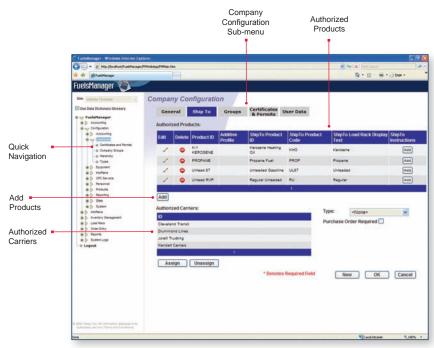
Control product throughput at any level in the company hierarchy. Allocations can be defined per day, week, month or year and also configured to automatically reset at the end of the allocation period.



**Allocation Configuration** 

## **Companies**

Assign multiple roles for all companies within your supply chain, such as a Supplier, Manager, Stockholder, Shipper, Bill-to Customer, Ship-to Customer or Carrier.



Administrators are able to restrict access and lock out particular companies for operator commands or loading functions. e.g. ship-tocustomers can only load products for which they have been authorized within thier company role.

**Company Configuration** 



### **Equipment & Stations**

Various stations are supported, including entry and exit gates, loading racks, weigh stations and equipment types, such as tractor, trailer, rail car, etc., each with it's individual configuration. For example, test and inspection information can be stored for trucks and loading cannot occur unless a specific truck meets the requirements you have set.

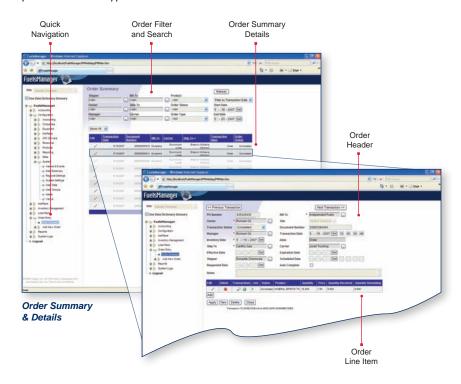
Equipment Allocation Configuration Header Sub-menu A . II - M . Dtor FuelsManager **Equipment Configuration** Use Data Dictionary Gossary Compartments Tests & Tags & Licenses \* D Accounting 8 - Configuration CTU-410 # > Accounting \* Companies Description: Quick - o- Taga ent Licenses Type: Trailer o Tests and trapecture Navigation m b resPare Make: Locked Out \* D OPC Savers m > Personnel Model: Locked Out Reason: DOT 406 cargo \* > Princes # 5 Reporting Year # b Sies # 5 System 584000392-124123 Serial Number: # 5 HoPare R . Inventory Hanagame . b Lout Race Decimal Places: Locked Out Date \* 5 Dider brity Volume # 5 Reports \* System Lage 0 Temperature: Company o Logout Cleveland Transit Company Equipment ID: \* Denotes Required Field OK New Cancel **Equipment Configuration** 

New Equipment

► Administrators are able to restrict access and lock out particular equipment or stations for operator commands or loading functions.

### **Order Summary & Details**

Your terminal operators are able to view a master summary for all customers, while your customers are provided the same intuitive interface, but are restricted to viewing only their own order summary. Accessed from the order summary, each order detail can be fully configured to display only the data relevant to a particular order type or based on relevance to the customer.

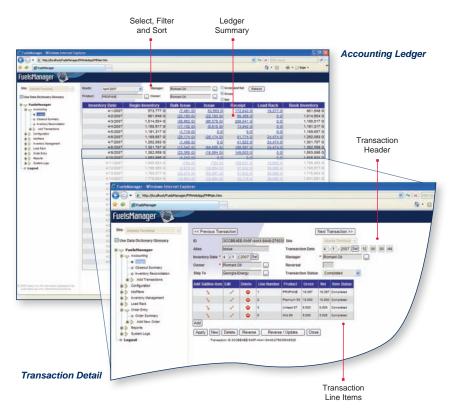


- download orders from other ERP systems, such as SAP.
- Orders can be printed, saved as Adobe PDF or exported to Microsoft Excel.
- Details such as bill to, ship-to, carrier, product, quantity, scheduled date or date range, etc. are all available based on your facilities configuration.
- orders can be set to "Auto Complete" based on a successful load/pickup of product.



### **Accounting Ledger**

Select, sort and filter from all fueling transactions to view the transaction details for specific customers.



- Display any of the 174 standard data fields and up to 24 user defined data fields that have been configured for any individual transaction.
- Select any detail on the ledger with a hyperlink to view that particular transactions details.
- ▶ View totals in gross, net or both.
- ► Perform reconciliation and closeout on your schedule.
- ► Perform end-of-day and end-of-month processes.



Varec, Inc. • 5834 Peachtree Corners East • Norcross (Atlanta), GA 30092 Tel: +1 (770) 447–9202 • Fax: +1 (770) 662–8939 www.varec.com